

Petroglyph Motif Distribution in East Polynesia

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Comprehensive rock art documentation projects in Easter Island, the Marquesas and the Hawaiian Islands have resulted in an extensive Polynesian rock art data base. A study of motif distribution as revealed in these projects contributes toward a better understanding of certain features of Polynesian culture. For example, internal spatial distribution patterns on Rapa Nui suggest an association with ancient clan boundaries, and inter-island comparisons provide insight into prehistoric migration routes.

Rapa Nui

Despite the small size of Rapa Nui, specific petroglyph motifs "cluster" in discrete locations around the island. These are spatially distributed and suggest a correspondence with clan divisions, as we know them from either Routledge's (1919:222) clan map (fig.1) or the clan divisions published by Hotus, *et al.* (1988:6). The location of some motifs suggest expansion through conquest, or a change of clan boundaries over time.

The Rapa Nui petroglyph project (1981-86) resulted in an extensive data set¹ that revealed eleven specific motif types. During data processing, it was noted that a considerable numerical difference exists between various types of petroglyph motifs, and many of these types are distributed or grouped in discrete areas of the island (Lee 1992).

Over 4000 petroglyphs that represent recognizable images such as faces, birdman, sea creatures, canoes, and so on, were recorded. In addition, cupules (cup-shaped depressions) of which there are at least several thousand, often form 'boundaries' or borders around panels. The most famous of the designs is birdman, the combined man-bird figure. This elegant motif has a huge eye, beak and gular pouch of a frigate bird with a human body shown in profile and knees bent. Other prominent motifs are known as Makemake faces, and *komari* (vulva forms) (fig.2).

A quick look at the petroglyph count at certain sites is revealing: at Orongo, 1274 petroglyphs were documented; if nearby areas of Rano Kau, Motu Nui and Vai Atare are added in, this one section of the island contains 39% of the island's total and is a strong reflection of the ceremonial activities that took place in that locale. Aside from sheer numbers, the beauty of the carved figures at Orongo is evidence of master carvers at work. Island-wide, birdmen—including all types—constitute 473 units; of these, 86% are found in the Rano Kau/Orongo area. This comes as no surprise, given that Orongo was the focus for the birdman cult.

Komari is the single most prevalent motif with 564 examples. Like the birdman motif, these are focused around Rano Kau/Orongo where 61% are located, many of them superimposed over birdman.

The area near Ahu Ra'ai, at La Pérouse Bay, has another interesting cluster. Although sites along that coast have a few petroglyphs, one discrete area at Ra'ai contains 501 elements—and 62% are either canoes or fishhooks. Some of the canoe shapes are of extraordinary size: one, which appears to represent a double canoe, is ten meters long (fig. 3).

Fishhook motifs have unusual distribution. These images depict a typical curved Polynesian fishhook of the kind used for deep water fishing. A total of 380 are recorded: of these, 58% are at Ahu Ra'ai. In addition, forty fishhook motifs cluster at the tip of Poike at Papa Ui Hetu'u, the place where, according to Routledge (1919:235), the "old men came to watch the stars".²

In regard to the uneven distribution of fishhook petroglyphs, assuming they were carved specifically for rituals dealing with star watching, perhaps there is an association between their location and the dominant Miru clan, the founding ancestor, and the navigators. They may have been clan symbols, for Routledge (1919:219) shows them as ancient tattoo markings. Their distribution suggests that, in earlier times, the Miru may have

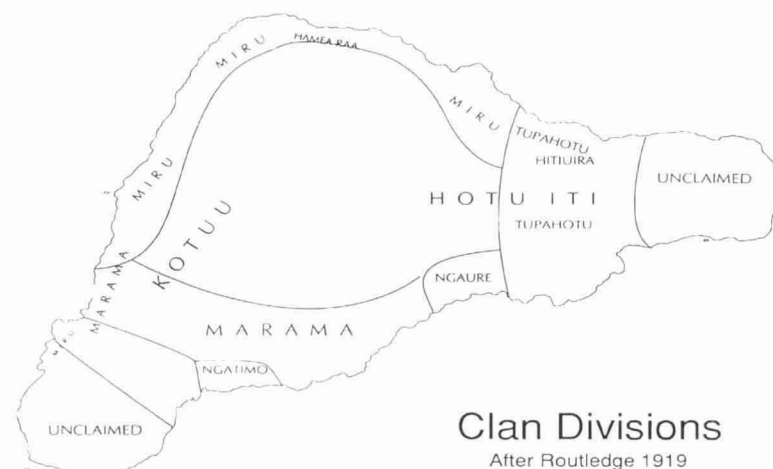


Figure 1. The clan divisions of Easter Island.

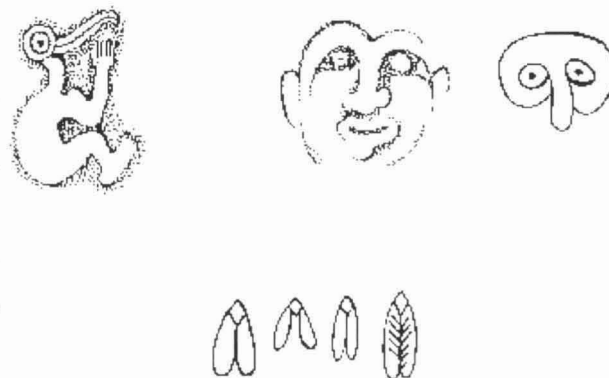


Figure 2. Three of the key petroglyph motifs from Easter Island: a birdman, two Makemake, and four *komari* (vulva forms).

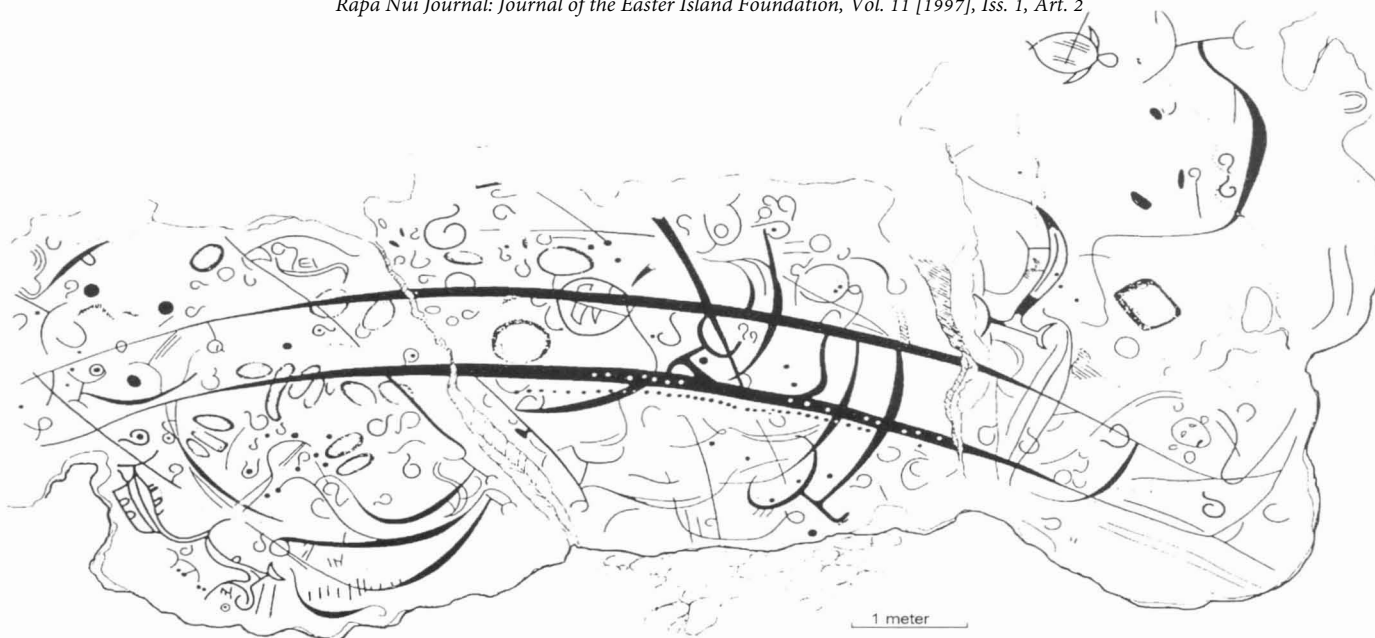


Figure 3. Canoe motifs, some with end extension, Ahu Ra'ai. What this appendage signified is unclear.

controlled the entire north coast all the way to the tip of Poike. If so, it is confirmation of the clan boundaries as shown by Hotus, *et al.*

The canoe motif from Ahu Ra'ai may have represented the sacred canoe of the founding ancestor. This unusual canoe design has an end extension, a still-obscur feature that Métraux noted and commented on. The extension or appendage is a vertical element with a curve on each end. The top curve is always larger than the lower (fig.3). Arne Skjølsvold (personal communication) thought it reminiscent of rudders or steering paddles seen in the Maldives. In regard to this appendage, Métraux states:

My informant . . . remembered having heard of hoof-shaped frames at the ends of canoes and tried to explain certain obscure designs which accompany the representation of boats on petroglyphs as attempts made by native artists to figure the hoof shaped parts of their craft. My informant was positive that the bowed frames were supports for nets or lines (1940:205).

Whatever these canoe appendages indicated, they are repeated time and again and are quite specific. They are also



Figure 4. Foundation stone at early ahu, Anakena. The petroglyph is of a canoe with end extension

focused on one area of the island: between Ahu Ra'ai, and Anakena. The fact that they also appear at Anakena, carved on large *paenga* and boulders and associated with *ahu* construction that preceded the present Ahu Nau Nau, suggests considerable antiquity for this motif (fig.4). It appears that this was an emblem connected with the Miru and kingship.

Canoes in Polynesia involved status and class. Sacred canoes were "possessed" by chiefs who had exclusive fishing rights in certain areas as well as the right to fish when this activity was forbidden to others. The high ranking Miru clan had a monopoly on the better offshore fishing localities to leeward.

Canoe shapes without an appendage are, however, found at many locations around the island; some are on *pukao* as secondary applications, carved after the topknots were toppled.³ It must be stressed that these canoe forms are not "sickle-shaped reed boats" as proposed by *aficionados* of South American contact. Canoes are also carved on the torsos of some *moai*, on *paenga* (particularly red scoria coping stones), and the *pukao* "blanks" at Puna Pau.³ If this motif is indeed symbolic of the Miru clan, as we propose, the canoe shapes carved on the various surfaces around the island could be marks of a conqueror and thus the result of intertribal warfare.

Other petroglyphs including depictions of *hare paenga* (boat shaped houses) and head-dresses are found in

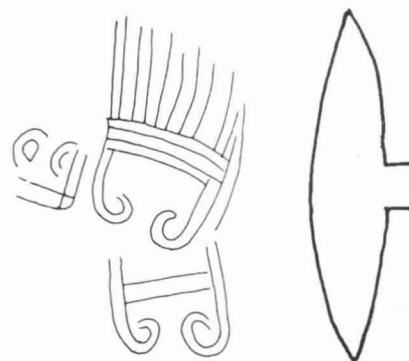


Figure 5. Petroglyphs of head-dresses and a *hare paenga*, from the north coast of Easter Island.

only one part of the island, also in Miru territory (fig.5). The rationale for this distribution is not known, although both designs are associated with kingship and status. Actual house foundations are found all around the island so it is curious that petroglyphs of *hare paenga* are restricted to one area.

Rapa Nui has some interesting "sea creature" petroglyphs, more than all the other Polynesian islands—and in staggering variety. There are sharks, tuna, whale, octopus, swordfish, eel, as well as plain old generic fish and, of course, turtle—the one sea animal seen in rock art all over Polynesia. The most exciting sea creatures are those that combine human and fish forms (fig.6). Many are described as *varua* or *aku-aku*, and are connected to legends. These cluster around the Anakena area (in Miru territory) and a few are at Rano Kau, but they are not found elsewhere on the island. Might these combined images be metaphors or totems? To symbolically combine human and animal is to acquire the non-human supernatural power of that animal. The transformation quality of these images, half human and half fish, parallels the wood carvings of Rapa Nui which are noted for their visual punning, where one form transmutes into another, such as is seen in the wooden images of *moko* where lizards sprout bird tails and have human hands and genitalia.

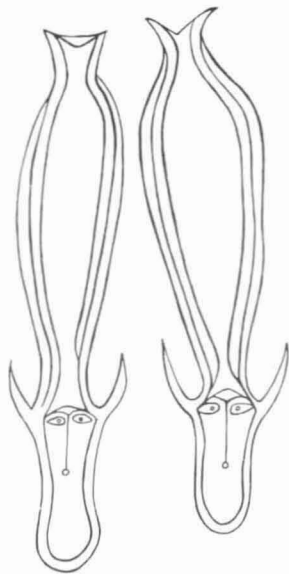


Figure 6. Sea creatures from Easter Island. These combined forms feature sea forms with human faces.



Figure 8. Hawaiian triangular bodied anthropomorph with muscles. This is a later development on the earlier stick figure type.

Two other elements set Rapa Nui's petroglyphs apart from the rest of Polynesian rock art: variety and scale. In the Marquesas and Hawaiian Islands, designs tend to be homogenous as well as small in scale. Rapa Nui's designs are also deeply carved or, in the case of 'Orongo, in bas relief—an extra step to create deep shadow and form.

Hawai'i and the Marquesas

The adventurous Polynesians who settled Easter Island and Hawai'i are believed to have set off from the Marquesas Islands. This idea is suggested by linguistic studies and comparisons of various items of material culture.

Elsewhere it has been suggested (Lee and Stasack, n.d.) that design motifs travel along as a sort of cultural baggage, and that it may be possible to trace migration routes by comparing motifs expressed in rock art. The most striking example of this possibility is the concordance between Marquesan and Hawaiian petroglyph designs. Looking at the universe of design motifs from both island groups leaves no doubt that the original settlement of Hawai'i was from the Marquesan Islands. And it is apparent that the newly arrived settlers began making petroglyphs soon after arrival, before their mind-set or mental patterns had become altered by time.

Hawaiian and Marquesan anthropomorphic stick figures and dog images are practically interchangeable (fig.7). Other similarities include geometrics such as circles, concentric rings, and cupules. But the manner of depicting human images in Hawai'i changed; sometime around AD 1600⁴ stick figures evolved into triangular-bodied figures, and these in turn developed into muscled anthropomorphs (fig.8). It is assumed that such changes signal transformations in the society.⁵ This evolution in figure type did not occur in the Marquesas.

Looking from the Marquesas to Easter Island, we might expect to see Marquesan-like stick figures on Rapa Nui. There are none. The few anthropomorphic figures on Easter Island are fully developed and carved in bas relief, such as those on the sea wall of Anakena's Ahu Nau Nau.

We do have some corollaries between the Marquesas and Rapa Nui: these include motifs of fish, turtles, and faces. Although the typical Marquesan-style face is different from most of those recorded on Rapa Nui, some bear a resemblance to the so-called "eye mask" Makemake face. There are no dog petroglyphs on Easter, easily explainable by the fact that this creature never made it to Rapa Nui. But the lack of human stick figures is a real puzzle. Might this be due to temporal factors? Perhaps the Makemake-type faces in the Marquesas were earlier but the stick figure style developed later, after the

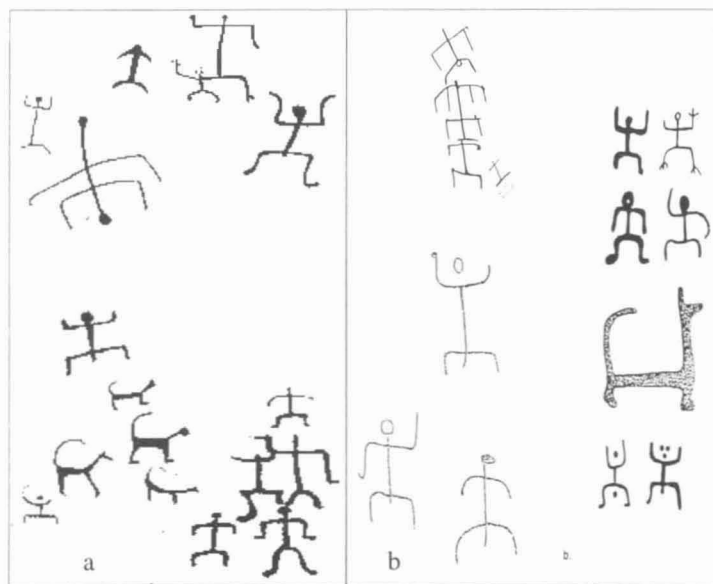


Figure 7. a) Hawaiian stick figures and dog images; b) Marquesan stick figures and dog images (after Millerstrom). Note how closely these resemble each other.

settlers left for Easter Island. Later, when others sailed for Hawai'i, the stick figure motif was the current and popular one.⁶

An alternate scenario to explain the discrepancy between Easter Island's rock art and that of the Marquesas is that the founding voyage from the Marquesas was not a direct one, and a stopover elsewhere caused a break in the traditional

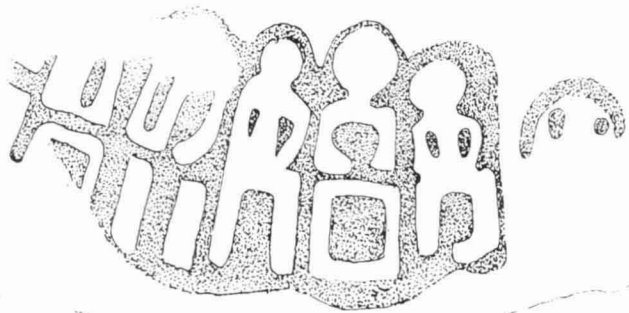


Figure 9. A site on the island of Ra'ivavae has a small cluster of petroglyphs in bas relief (drawn after Edwards).

petroglyph carving tradition. If so, where else in Polynesia might one look? The tiny far-away island of Rapa Iti has one petroglyph, recorded by Carlyle Smith: a bas relief human carved near a tomb, high on a mountain (Smith 1965:91; pl.23b). Petroglyphs have not been recorded from Mangareva (Gambier Islands) or the Cook Islands. But little Ra'ivavae in the Australs has an interesting site, discovered by Edmundo Edwards. Here are some unusual creatures carved in bas relief, and a face (fig.9). This is a subject worthy of further study.



Figure 10. Profile figure in bent-knee posture from the Big Island of Hawai'i.

There are few similarities between Rapa Nui and Hawai'i; the latter has a some fishhook designs and petroglyphs of human feet that are close to those on Easter Island, plus faces or Makemake eyes, but this may be fortuitous: both used the same fishhook style and human feet are the same everywhere. The profile squatting (or praying) figures in Hawai'i bear a resemblance to Rapa Nui birdmen. Several of these have been recorded on the Big Island of Hawai'i (Puako and Pu'uuloa), O'ahu, and Kaua'i (Kikuchi 1994) (fig.10).

O'ahu's example is on a boulder excavated from a field at Pu'u O Ma'o, Moanalua Valley (Stokes 1906-11). It contains two bas relief figures that, except for the heads, easily could pass for Rapa Nui birdmen (fig.11). The Moanalua Valley boulder with its deep bas relief figures is extraordinary for it seems not to have any antecedents. Bas relief is extremely rare in Hawaiian rock art; a few others have been recorded on the Big Island and one on Lana'i, but these are shallow and tentative. The O'ahu boulder is unique. If there is a mystery in

the petroglyphs of Hawai'i, it is here. This does not imply any direct connection between Rapa Nui and Hawaii; rather, it is a reflection of a relationship going back across the Pacific into Southeast Asia where the "bent knee" form is seen in a variety of artistic expressions.

Some writers have suggested that the birdman motif of Easter Island is comparable to similar images found in South America, in particular from the Chimu period in Peru. In reality, the combination of bird and man can be found in nearly every culture and time period in the world. These composites can be seen in the art of Egypt, throughout Southeast Asia, China, North America, and back into Paleolithic Europe. What must be considered is the entire context:

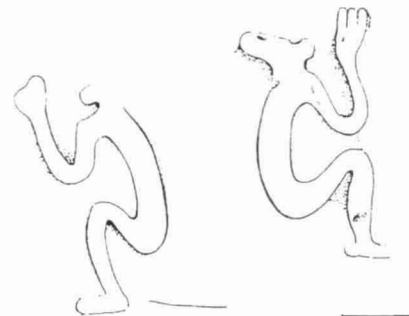


Figure 11. The boulder from Moanalua Valley, O'ahu, Hawai'i.

Easter Island's culture, language, mythology, etc., is Polynesian. Intrusive elements have not been found that could suggest South American influence: neither pottery, metal, nor finely worked obsidian blades. One main argument for South American contact has been in regard to the presence of the sweet potato in Polynesia. Recent excavations on the island of Mangaia (Cook Islands) now show that the sweet potato already was far to the west by AD 1000 (Kirch 1991), thus this staple must have arrived long before, by a yet-unknown means. And now, with the discovery of the same type of crouching half-man figure from three of the Hawaiian islands, it makes the so-called "Peruvian connection" even more tenuous. Are we to believe that South American Indians also came to the Hawaiian Islands?

Conclusion

The Marquesas and Hawaiian Islands clearly share a tradition of very similar rock art images; Easter Island does not draw from this tradition as strongly—a divergence that either reflects an earlier time-frame for departure from the Marquesas or perhaps a round-about approach to that small solitary island.

On Easter, several petroglyph types correlate with clan boundaries. This association has not been made in Hawai'i although certain sites on the Big Island of Hawai'i show design variations depending upon site function. For instance, sites associated with trails have a different universe of design types than sites without trails (Lee and Stasack, n.d.).

The clustering of certain Easter Island petroglyph motifs is surely not accidental but, aside from Orongo, few petroglyph sites have been related to their archaeological surroundings. This is an promising avenue for future archaeological research.

The Polynesian data base, comprising years of research in Rapa Nui and Hawai'i,⁷ will be consolidated with Millerstrom's work in the Marquesas. Much analysis remains to be

done. Once the motifs from these East Polynesian islands are compared and studied, it is expected that patterns may emerge. As archaeological excavations proceed on Easter Island, we may be provided with additional information that will tie into the petroglyph sites, helping to better understand their role in the ancient society.

Footnotes

¹ The Rapa Nui petroglyph project was conducted under the auspices of the University Research Expeditions Program, University of California, Berkeley; and with the permission of the Consejo de Monumentos, Santiago. I was assisted by many individuals and am grateful to Edmundo Edwards, Sergio Rapu, the Instituto de Estudios, and several islanders who worked closely with the project over the years. In particular, Felipe Teao, Raul Paoa, and Keremo Ika provided invaluable assistance. Many individuals came to work with me and some continued with projects of their own. Joan Seaver, Jo Anne Van Tilburg and Sidsel Millerstrom are obvious standouts. The Marquesan research by Millerstrom has been especially informative and helpful; a few years back she had recorded some 6,000 petroglyphs in those islands; no doubt the count is now higher.

² Routledge (1919:235) referred to these carvings as "spirals" but they are the typical deeply-curved Polynesian fishhook. Routledge's informant told her the petroglyphs constituted a "map of the stars." There are interesting implications here, perhaps dealing with Scorpius, the "great fishhook in the sky".

³ This is apparent because of the placement of petroglyph designs relative to position of the fallen *pukao*.

⁴ This date is the result of archaeological work in Hawai'i where excavations in caves have revealed these stylistic variations in association with datable levels of midden (Cleghorn 1980).

⁵ In the same way that crested headwear in Hawaiian culture has been postulated to have been influenced by early contact by off-course Spanish or Portuguese ships, the triangular-shape torso figure may suggest an attempt to delineate European body armor.

⁶ This idea was first brought to my attention by Edmundo Edwards (personal communication).

⁷ The Hawaiian rock art data base now contains 31,249 petroglyphs from sites on the islands of Lana'i, Kaho'olawe, and five sites on the Big Island, Hawai'i.

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ANNOUNCEMENT

In 1996 the University of Hawaii and the Andover Foundation for Archaeological Research began a three year research and training project in the Marquesas. The project, directed by UH archaeologist Barry Rolett, investigates the origins of Marquesan monumental architecture and the cultural context in which this development occurred. Field work focuses on Tahuata, an island with a population (ca. 600) consisting entirely of native Marquesans. Volunteers interested in joining the project for 2 weeks or more are being recruited for the 1997 field season, which begins in June. The Andover Foundation is also organizing a 10 day archaeological tour of the Marquesas, also for June 1997.

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